

March 31, 2016

My-Linh Nguyen, Ph.D., P.E.
Chief
Bureau of Safe Drinking Water
Nevada Division of Environmental Protection
901 South Stewart, Suite 4001
Carson City, NV 89701

Dear Ms. Nguyen,

Enclosed you will find the Water Treatment and Water Distribution Summary Reports for the certification examinations that took place on March 18, 2016 at various sites throughout the State.

The individual results have been sent in a separate email to you and Max Sosa. Should you have any questions or need further information, please contact me at 909.291.2100 or by email genriquez@ca-nv-awwa.org. You are also welcome to contact Steven Garner, Certification Manager at 916.889.8465 or by email sgarner@ca-nv-awwa.org.

Sincerely,



Gina Enriquez
Certification Specialist
CA-NV AWWA

cc: Max Sosa
Rachel Weingart
Debra Kaye
Will Raymond
Steven Garner

Examination Summary Reports

March 2016 Examinations

Prepared for
Bureau of Safe Drinking Water, Nevada Division of Environmental Protection

Prepared By
California – Nevada Section of the American Water Works Association
March 31, 2016

Overall Exam Results

Exam Analysis Pass/Failure Rate

Water Distribution - Entire State:

54 Passed the Exam
40 Failed the Exam

Water Treatment - Entire State:

30 Passed the Exam
08 Failed the Exam

By Region:

Northern NV: 53 Testers

Passing Rate of 55%
Failure Rate of 45%

By Region:

Northern NV: 24 Testers

Passing Rate of 79%
Failure Rate of 21%

Southern NV: 41 Testers

Passing Rate of 61%
Failure Rate of 39%

Southern NV: 14 Testers

Passing Rate of 79%
Failure Rate of 21%

Analysis Pass/Failure Rate by Grade Level/Discipline

Water Distribution - Entire State:

54 Passed the Exam
40 Failed the Exam

Water Treatment - Entire State:

30 Passed the Exam
08 Failed the Exam

By Discipline Pass/Failure:

Distribution Grade 1 (D1)

25 Passed
17 Failed

Distribution Grade 2 (D2)

18 Passed
11 Failed

Distribution Grade 3 (D3)

10 Passed
09 Failed

Distribution Grade 4 (D4)

01 Passed
03 Failed

By Discipline Pass/Failure:

Treatment Grade 1 (T1)

17 Passed
04 Failed

Treatment Grade 2 (T2)

12 Passed
03 Failed

Treatment Grade 3 (T3)

01 Passed
00 Failed

Treatment Grade 4 (T4)

00 Passed
01 Failed

DISTRIBUTION OPERATOR CERTIFICATION

The Topics Identified Below Had a "Partial Mastering" Rate of More Than 20%

Grade I – Distribution

- Monitor, Evaluate & Adjust Disinfection
- Install Equipment
- Operate Equipment
- Perform Security, Safety & Admin
- Perform Maintenance
- Laboratory Analysis

Grade II – Distribution

- Perform Security, Safety & Admin
- Install Equipment
- Perform Maintenance
- Monitor, Evaluate & Adjust Disinfection
- Operate Equipment
- System Information/Components
- Laboratory Analysis

Grade III – Distribution

- Install Equipment
- Perform Maintenance
- Monitor, Evaluate & Adjust Disinfection
- Operate Equipment
- Perform Security, Safety & Admin
- System Information/Components
- Laboratory Analysis

Grade IV – Distribution

- Install Equipment
- Perform Maintenance
- Monitor, Evaluate & Adjust Disinfection
- Laboratory Analysis
- Operate Equipment

Treatment Operator Certification

The Topics Identified Below Had a "Partial Mastering" Rate of More Than 20%

Grade I – Treatment

- Laboratory Analyses
- Comply w/Drinking Water Regulations
- Operate & Maintain Equipment
- Evaluate Characteristics of Source Water

Grade II – Treatment

- Laboratory Analyses
- Comply w/Drinking Water Regulations
- Operate & Maintain Equipment
- Monitor, Evaluate & Adjust Treatment
- Perform Security, Safety & Administration
- Evaluate Characteristics of Source Water

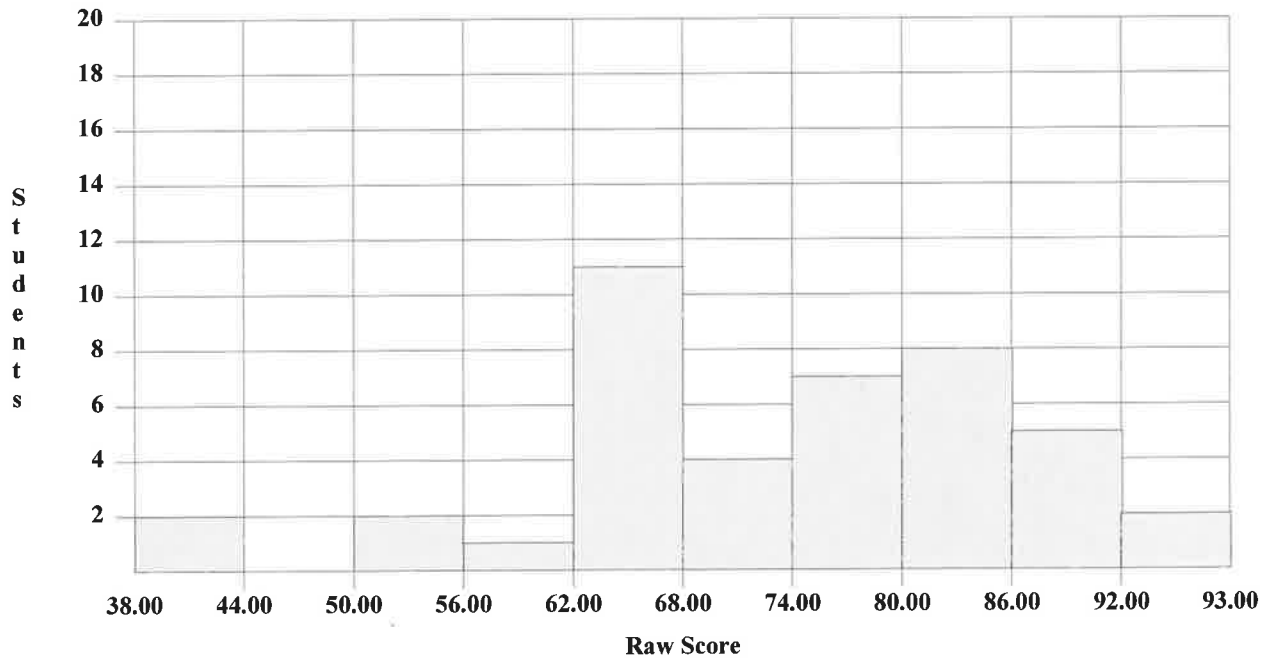
Grade III – Treatment

- Comply w/Drinking Water Regulations

Grade IV – Treatment

- Operate & Maintain Equipment
- Perform Security, Safety & Administration
- Evaluate Characteristics of Source Water

TEST STATISTICS REPORT
ABC Water Distribution Class I Exam
ABC1264D



Test Name:	ABC1264D	
Test Date:	10/12/2012	
Number of Examinees:	42	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	93.00	(93.00)
Lowest Score:	38.00	(38.00)
Median:	74.00	(74.00)
Mean:	72.36	(72.36)
Standard Deviation:	12.73	
Test Reliability:	0.90	
Standard Error of Measurement:	4.02	

MASTERY SUMMARY REPORT

ABC Water Distribution Class I

Test Series: ABC1264D

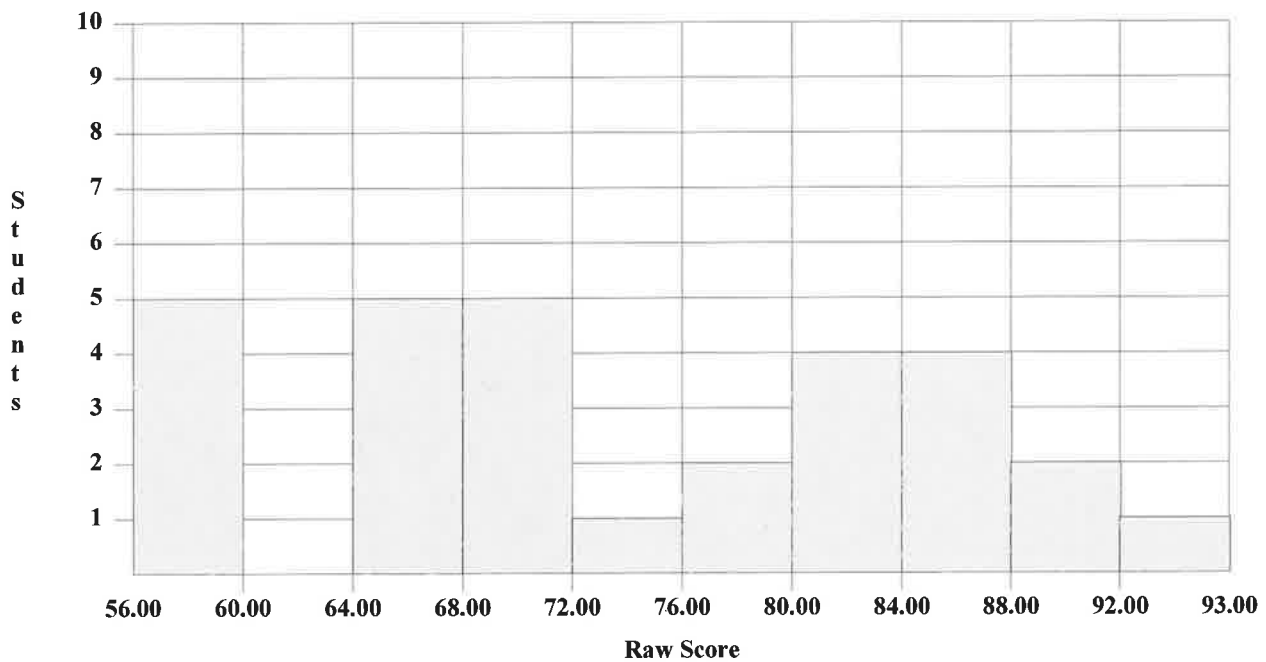
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Scoring Date: 3/28/2016

Candidates: 42

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	31	11	0	73.81	26.19	0.00	16.00	16.00	8.00	12.69
Install Equipment	11	24	7	26.19	57.14	16.67	5.00	5.00	0.00	2.64
Perform Maintenance	19	19	4	45.24	45.24	9.52	20.00	20.00	7.00	12.81
Monitor, Eval, & Adjust Disinfection	25	15	2	59.52	35.71	4.76	11.00	11.00	4.00	7.81
Operate Equipment	28	13	1	66.67	30.95	2.38	18.00	17.00	7.00	13.33
System Information/Components	34	8	0	80.95	19.05	0.00	9.00	9.00	4.00	7.40
Laboratory Analysis	29	10	3	69.05	23.81	7.14	21.00	20.00	5.00	15.67

TEST STATISTICS REPORT
ABC Water Distribution Class II Exam
ABC1017D



Test Name:	ABC1017D	
Test Date:	10/12/2012	
Number of Examinees:	29	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	93.00	(93.00)
Lowest Score:	56.00	(56.00)
Median:	71.00	(71.00)
Mean:	74.00	(74.00)
Standard Deviation:	11.04	
Test Reliability:	0.87	
Standard Error of Measurement:	3.98	

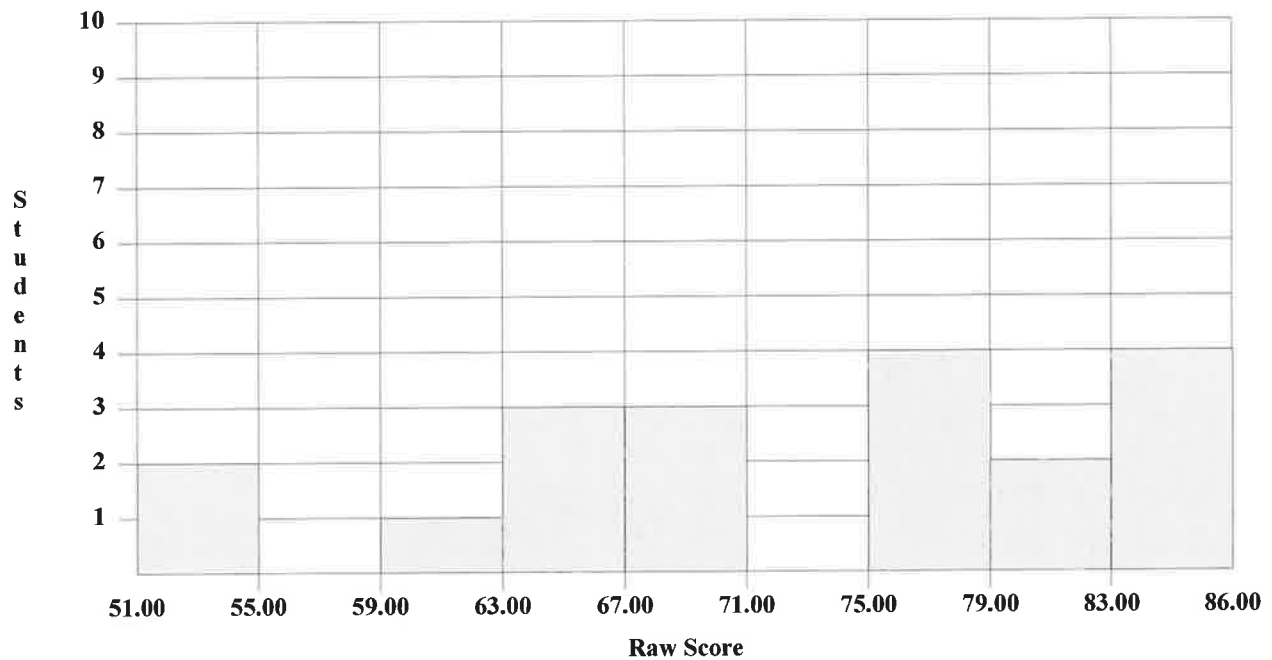
MASTERY SUMMARY REPORT
ABC Water Distribution Class II

Test Series: ABC1017D
Scoring Date: 3/28/2016

Version: 0
Candidates: 29

# M	Number Mastering	% M	% Mastering	PTS	Possible Points					
# PM	Number Partial Mastering	% PM	% Partial Mastering	HIGH	Highest Points					
# NM	Number Not Mastering	% NM	% Not Mastering	LOW	Lowest Points					
				AVG	Average Points					
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	17	12	0	58.62	41.38	0.00	16.00	16.00	9.00	12.14
Install Equipment	22	7	0	75.86	24.14	0.00	5.00	5.00	2.00	4.14
Perform Maintenance	19	10	0	65.52	34.48	0.00	20.00	19.00	9.00	15.07
Monitor, Eval, & Adjust Disinfection	14	14	1	48.28	48.28	3.45	11.00	10.00	4.00	7.31
Operate Equipment	18	11	0	62.07	37.93	0.00	18.00	18.00	9.00	13.38
System Information/Components	19	10	0	65.52	34.48	0.00	9.00	9.00	4.00	6.90
Laboratory Analysis	17	11	1	58.62	37.93	3.45	21.00	20.00	7.00	15.07

TEST STATISTICS REPORT
ABC Water Distribution Class III Exam
ABC1018D



Test Name:	ABC1018D	
Test Date:	10/12/2012	
Number of Examinees:	19	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	86.00	(86.00)
Lowest Score:	51.00	(51.00)
Median:	75.00	(75.00)
Mean:	71.79	(71.79)
Standard Deviation:	10.27	
Test Reliability:	0.85	
Standard Error of Measurement:	4.02	

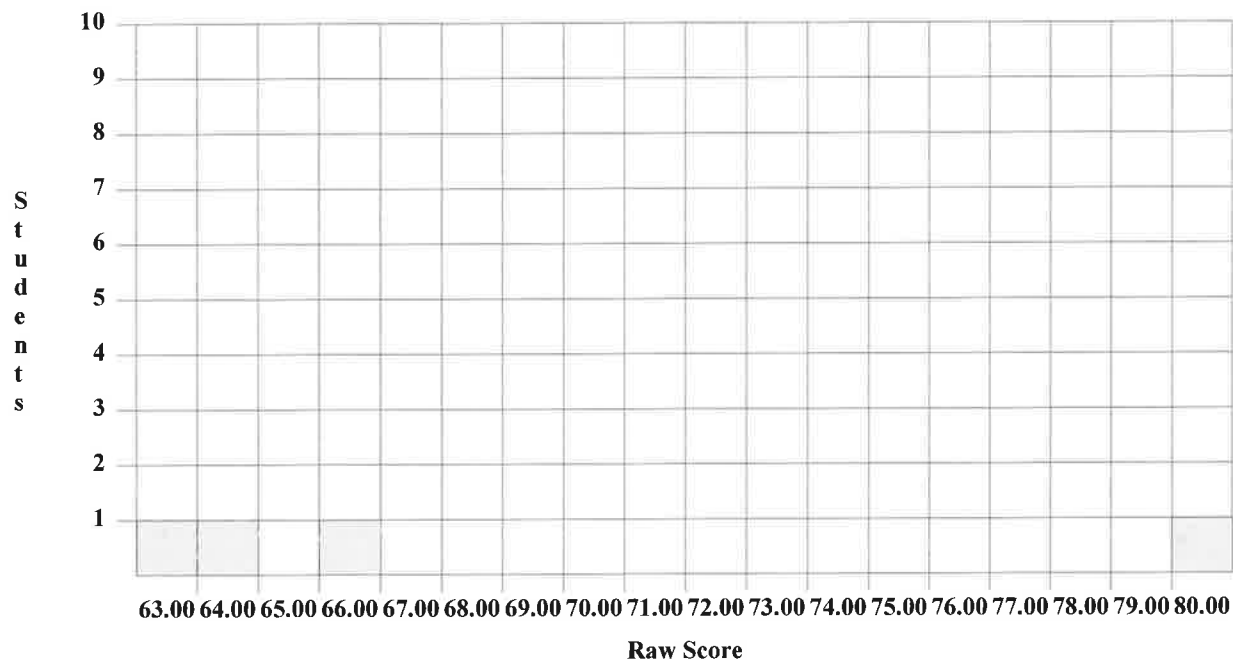
MASTERY SUMMARY REPORT
ABC Water Distribution Class III

Test Series: ABC1018D
Scoring Date: 3/28/2016

Version: 0
Candidates: 19

# M	Number Mastering	% M	% Mastering		PTS	Possible Points				
# PM	Number Partial Mastering	% PM	% Partial Mastering		HIGH	Highest Points				
# NM	Number Not Mastering	% NM	% Not Mastering		LOW	Lowest Points				
					AVG	Average Points				
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	11	8	0	57.89	42.11	0.00	17.00	16.00	9.00	12.58
Install Equipment	12	6	1	63.16	31.58	5.26	5.00	5.00	0.00	3.68
Perform Maintenance	12	7	0	63.16	36.84	0.00	20.00	18.00	9.00	14.11
Monitor, Eval, & Adjust Disinfection	13	6	0	68.42	31.58	0.00	10.00	10.00	5.00	7.11
Operate Equipment	13	6	0	68.42	31.58	0.00	18.00	16.00	8.00	12.79
System Information/Components	12	7	0	63.16	36.84	0.00	9.00	8.00	4.00	6.53
Laboratory Analysis	12	7	0	63.16	36.84	0.00	21.00	19.00	11.00	15.00

TEST STATISTICS REPORT
ABC Water Distribution Class IV Exam
ABC1019D



Test Name:	ABC1019D	
Test Date:	10/12/2012	
Number of Examinees:	4	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	80.00	(80.00)
Lowest Score:	63.00	(63.00)
Median:	65.00	(65.00)
Mean:	68.25	(68.25)
Standard Deviation:	7.93	
Test Reliability:	0.73	
Standard Error of Measurement:	4.12	

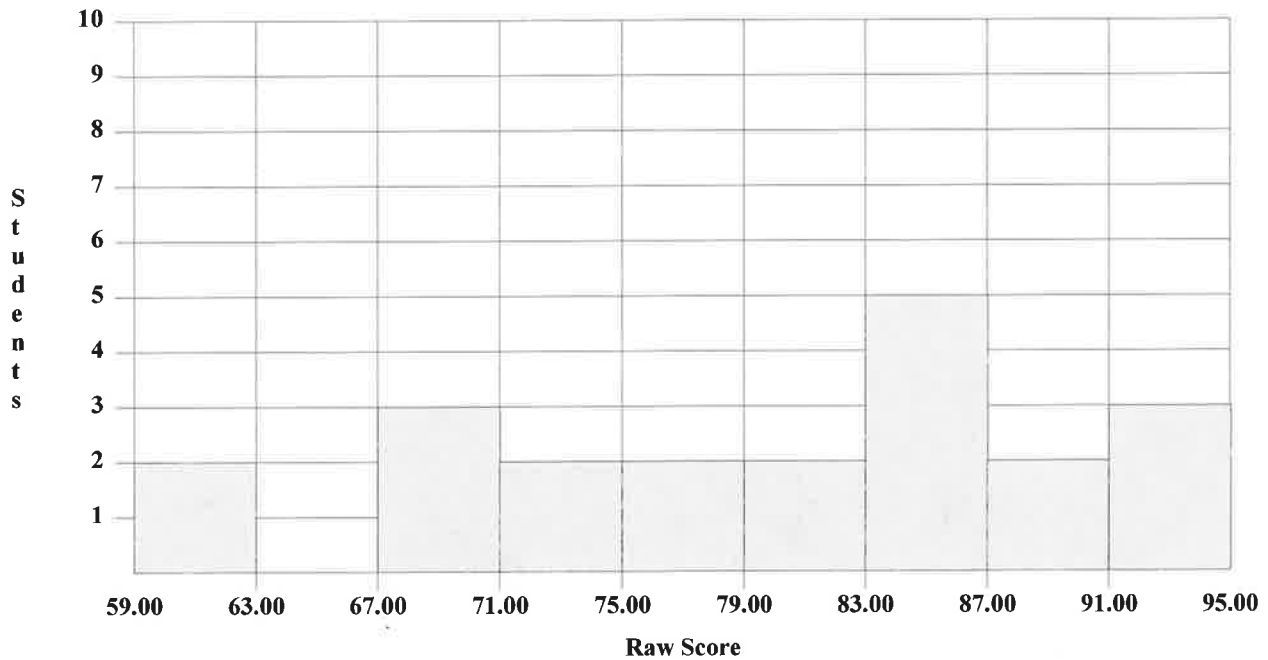
MASTERY SUMMARY REPORT
ABC Water Distribution Class IV

Test Series: ABC1019D
Scoring Date: 3/28/2016

Version: 0
Candidates: 4

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	4	0	0	100.00	0.00	0.00	17.00	16.00	13.00	14.50
Install Equipment	1	2	1	25.00	50.00	25.00	5.00	4.00	0.00	2.50
Perform Maintenance	2	2	0	50.00	50.00	0.00	21.00	16.00	11.00	13.50
Monitor, Eval, & Adjust Disinfection	2	2	0	50.00	50.00	0.00	10.00	9.00	4.00	6.50
Operate Equipment	1	3	0	25.00	75.00	0.00	18.00	15.00	8.00	11.75
System Information/Components	4	0	0	100.00	0.00	0.00	9.00	9.00	7.00	7.50
Laboratory Analysis	1	3	0	25.00	75.00	0.00	20.00	15.00	10.00	12.00

TEST STATISTICS REPORT
ABC Water Treatment Class I Exam
ABC1266W



Test Name:	ABC1266W	
Test Date:	10/12/2012	
Number of Examinees:	21	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	91.00	(91.00)
Lowest Score:	59.00	(59.00)
Median:	81.00	(81.00)
Mean:	78.76	(78.76)
Standard Deviation:	9.75	
Test Reliability:	0.86	
Standard Error of Measurement:	3.60	

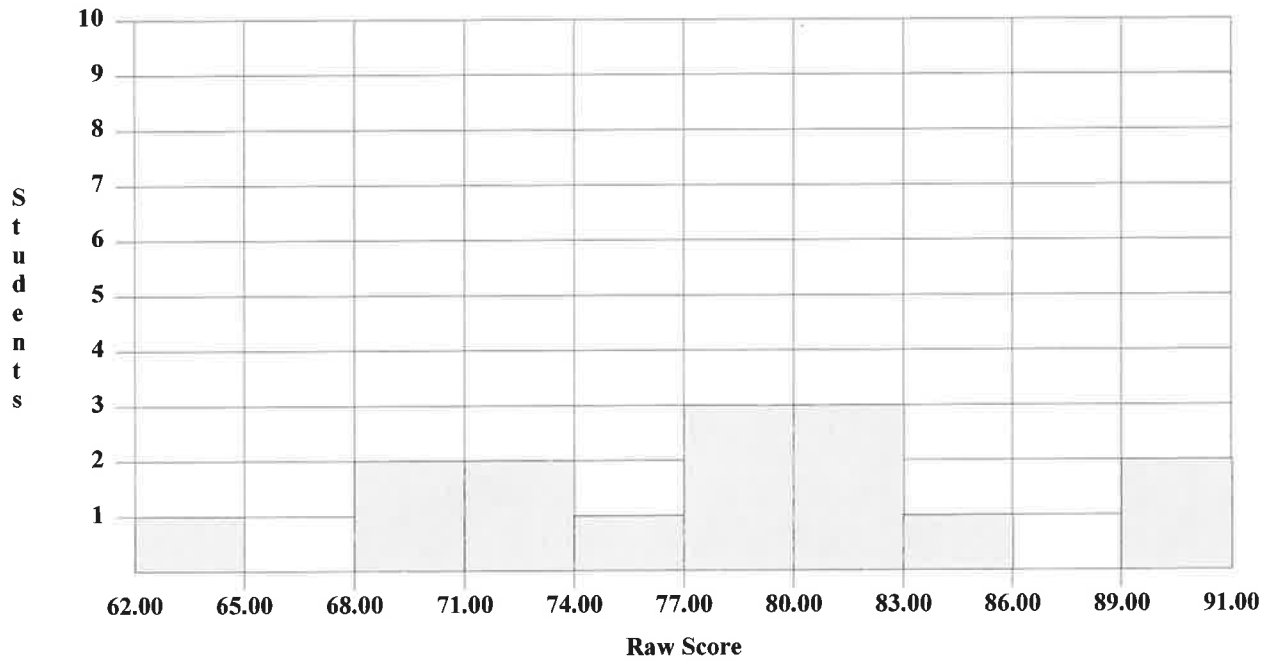
MASTERY SUMMARY REPORT
ABC Water Treatment Class I

Test Series: ABC1266W
Scoring Date: 3/28/2016

Version: 0
Candidates: 21

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	16	3	2	76.19	14.29	9.52	13.00	13.00	5.00	10.38
Laboratory Analyses	14	7	0	66.67	33.33	0.00	12.00	12.00	6.00	9.52
Comply w/ Drinking Water Regs	13	8	0	61.90	38.10	0.00	12.00	11.00	5.00	8.62
Operate & Maintain Equipment	15	6	0	71.43	28.57	0.00	27.00	25.00	14.00	20.71
Eval Characteristics of Source Water	14	6	1	66.67	28.57	4.76	6.00	6.00	2.00	4.90
Monitor, Eval, & Adjust Treatment	19	2	0	90.48	9.52	0.00	30.00	29.00	19.00	24.62

TEST STATISTICS REPORT
ABC Water Treatment Class II Exam
ABC1042W



Test Name:	ABC1042W	
Test Date:	4/14/2011	
Number of Examinees:	15	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	91.00	(91.00)
Lowest Score:	62.00	(62.00)
Median:	78.00	(78.00)
Mean:	77.07	(77.07)
Standard Deviation:	8.04	
Test Reliability:	0.77	
Standard Error of Measurement:	3.88	

MASTERY SUMMARY REPORT
ABC Water Treatment Class II

Test Series: ABC1042W
Scoring Date: 3/28/2016

Version: 0
Candidates: 15

# M	Number Mastering	% M	% Mastering		PTS	Possible Points				
# PM	Number Partial Mastering	% PM	% Partial Mastering		HIGH	Highest Points				
# NM	Number Not Mastering	% NM	% Not Mastering		LOW	Lowest Points				
					AVG	Average Points				
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	11	4	0	73.33	26.67	0.00	16.00	16.00	9.00	12.47
Laboratory Analyses	10	5	0	66.67	33.33	0.00	13.00	12.00	8.00	10.33
Comply w/ Drinking Water Regs	10	5	0	66.67	33.33	0.00	12.00	11.00	8.00	9.20
Operate & Maintain Equipment	11	4	0	73.33	26.67	0.00	26.00	25.00	14.00	20.60
Eval Characteristics of Source Water	11	4	0	73.33	26.67	0.00	5.00	5.00	2.00	4.13
Monitor, Eval, & Adjust Treatment	10	5	0	66.67	33.33	0.00	28.00	27.00	15.00	20.33

TEST STATISTICS REPORT
ABC Water Treatment Class III Exam
ABC1043W

S t u d e n t s	10	
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	6	
	5	
	4	
	3	
	2	
	1	

77.00

Raw Score

Test Name:	ABC1043W	
Test Date:	10/12/2012	
Number of Examinees:	1	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	77.00	(77.00)
Lowest Score:	77.00	(77.00)
Median:	77.00	(77.00)
Mean:	77.00	(77.00)
Standard Deviation:	-	
Test Reliability:	-	
Standard Error of Measurement:	-	

MASTERY SUMMARY REPORT
ABC Water Treatment Class III

Test Series: ABC1043W

Version: 0

Scoring Date: 3/28/2016

Candidates: 1

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	1	0	0	100.00	0.00	0.00	18.00	15.00	15.00	15.00
Laboratory Analyses	1	0	0	100.00	0.00	0.00	11.00	8.00	8.00	8.00
Comply w/ Drinking Water Regs	0	1	0	0.00	100.00	0.00	11.00	7.00	7.00	7.00
Operate & Maintain Equipment	1	0	0	100.00	0.00	0.00	24.00	19.00	19.00	19.00
Eval Characteristics of Source Water	1	0	0	100.00	0.00	0.00	5.00	5.00	5.00	5.00
Monitor, Eval, & Adjust Treatment	1	0	0	100.00	0.00	0.00	31.00	23.00	23.00	23.00

TEST STATISTICS REPORT
ABC Water Treatment Class IV Exam
ABC1044W

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67.00

Raw Score

Test Name:	ABC1044W	
Test Date:	10/12/2012	
Number of Examinees:	1	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	67.00	(67.00)
Lowest Score:	67.00	(67.00)
Median:	67.00	(67.00)
Mean:	67.00	(67.00)
Standard Deviation:	-	
Test Reliability:	-	
Standard Error of Measurement:	-	

MASTERY SUMMARY REPORT
ABC Water Treatment Class IV

Test Series: ABC1044W
Scoring Date: 3/28/2016

Version: 0
Candidates: 1

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	0	1	0	0.00	100.00	0.00	18.00	10.00	10.00	10.00
Laboratory Analyses	1	0	0	100.00	0.00	0.00	11.00	8.00	8.00	8.00
Comply w/ Drinking Water Regs	1	0	0	100.00	0.00	0.00	10.00	8.00	8.00	8.00
Operate & Maintain Equipment	0	1	0	0.00	100.00	0.00	25.00	15.00	15.00	15.00
Eval Characteristics of Source Water	0	1	0	0.00	100.00	0.00	5.00	3.00	3.00	3.00
Monitor, Eval, & Adjust Treatment	1	0	0	100.00	0.00	0.00	31.00	23.00	23.00	23.00